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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,333	10/29/2003	Ahmad Said Ghazal	11178	8082

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EXAMINER	
VY, HUNG T	

ART UNIT	PAPER NUMBER
2163	

DATE MAILED: 04/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/696,333	GHAZAL, AHMAD SAID	
	Examiner	Art Unit	
	Hung T. Vy	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The specification has been checked to the extent necessary to determine the presence of possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

In claim 1, the clause "executing the query that feed the selected step" references to other items in the claim. It is unclear what item is being referenced.

In claim 1, the clause "with the other condition in the union of the conditions corresponding to the selected step" renders the claim indefinite because it is unclear what is the other condition in the union.

Claim Objections

3. Claim 2 is objected to because of the following informalities: in the claim 2, the claim recites "stored identifier**s**", it is the plural but in claim 1, the claim recites " an identifier", it is the single identifier. Appropriate correction is required.

Claim Rejections - 35 USC 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.

Claims 1-25 are rejected under 35 U.S.C. 101 because the claims are directed to a non-statutory subject matter, specifically, the claims are not directed towards the final result that is "useful, tangible and concrete". (See State Street, 149 F.3d at 1373-74 USPQ2d at 1601-02).

According to the New Guidelines of October 26, 2005, which states that "A claim limited to a machine or manufacture, which has a practical application, is statutory. In most cases a claim to a specific machine or manufacture will have a practical application. See Alappat, 33 F.3d at 1544, 31 USPQ2d at 1557)... a specific machine to produce a useful, concrete, and tangible result and State Street, 149 F.3d at 1373-74 USPQ2d at 1601-02).

(Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility <http://rs6.net/tn.jsp?t=mdmd7pbab.0.kbg76pbab.p9qiiibab.7440&p=http%3A%2F%2Fwww.uspto.gov%2Fweb%2Foffices%2Fpac%2Fdapp%2Fopla%2Fpreognotice%2Fguidelines101_20051026.pdf>)

Examiner requests Applicant to include in Applicant's claimed limitations (in all the claims) the following:

What is the practical application?

What is the result?

What is final result that is concrete, useful and tangible?

Because the "practical application, result, concrete, useful and tangible" limitations are not claimed in Applicant's claims, Examiner believes that the above listed

claims are nonstatutory.

Claimed invention (Claims 1, 11, and 21) recites a method for executing database queries including identifying redundant conditions, comprising determining steps **which do not provide concrete and tangible results**. The claims determine an authority-like weight and a hub-like weight, however there are no assured, repeatable outcomes/results from these steps. The claim also contains non tangible result as it only recites an abstract idea. The recited steps of merely determining an authority-like weight and determining a hub-like weight does not apply, user, or advance the technological arts since all of the recited steps can be performed in the mind of the user. These steps only constitute an idea of how to rank the relevance of a node. In order for claim to be tangible, it must be more than just a thought or computation and must have real world value.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> ((e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 6-7, 11, 16-17, 21 and 26-27 are rejected under 35 U. S. C. § 102 (e) as being anticipated by Dettinger et al. (U.S. Pub. No. 2004/0073539).

With respect to claim 1, Dettinger et al. discloses a method for executing database queries including identifying redundant conditions, comprising the steps of: (a) identifying a first set of conditions (712_1) corresponding to a selected step for executing a query; (b) identifying a second set of conditions (712_2) corresponding to one or more steps for executing the query that feed the selected step; (c) for each condition in the first set (712_1), checking whether the condition is mathematically redundant, including redundant without being equivalent, with the other conditions in the union of the conditions (720) corresponding to the selected step and the conditions in the second set, (d) including each condition in the first set (712_1) that is redundant as checked in step (c) in a third set (712_3); and (e) if there is only one condition in the third set after performing step (d), storing an identifier of the one condition (702)(See fig. 7).

With respect to claims 6-7,16-17, and 26-27, Dettinger et al. discloses the one or more step for executing the query that feed the selected step include all the steps that feed the selected step (see fig. 3), and executing the query without applying conditions with stored identifiers (622)(see paragraph 0073).

With respect to claim 11, Dettinger et al. discloses a computer program, stored on a tangible storage medium, for executing database queries, the program including executable instructions that cause a computer to: (a) identify a first set of conditions (712_1) corresponding to a selected step for executing a query; (b) identify a second set of conditions (712_2) corresponding to one or more steps for executing the query that feed the selected step; (c) for each condition in the first set, check whether the condition is mathematically redundant, including redundant without being equivalent, with the

other conditions in the union of the conditions (720) corresponding to the selected step and the conditions in the second set, (d) include each condition in the first set (712_1) that is redundant as checked in step (c) in a third set (712_3); and (e) if there is only one condition in the third set (712_3) after performing step (d), store an identifier (702) of the one condition (See fig. 7).

Claim Rejections - 35 U.S.C. § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth insection 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claim 21 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Dettinger et al. (U.S. Pub. No. 2004/0073539) in view of Milby (U.S. Patent No. 6,697,794).

With respect to claim 21, Dettinger et al. discloses all limitation of invention except for one or more nodes, a plurality of CPUs, a plurality of virtual process. However, Milby discloses one or more nodes (100), a plurality of CPUs (see column 2, line 10-20), a plurality of virtual process (110)(see fig. 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify a database system of Dettinger et al. by using the one or more nodes, a plurality of CPUs, a plurality of virtual process in order to have a massively parallel processing system since such using of the one or more nodes, a plurality of CPUs, a plurality of virtual process

for the stated purpose has been well known in the art as evidenced by teaching of Milby (see column 2, line 12).

9. Claims 2, 12 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Dettinger et al. (U.S. Pub. No. 2004/0073539) in view of Schiefer et al. (U.S. Patent No. 5,469,568).

With respect to claim 2 and 12, Dettinger et al. discloses all limitation of invention recited in claim 1 and 11 except for a cardinality calculation. However, Schiefer et al. discloses a cardinality calculation (see column 2, line 45-55). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify a database system of Dettinger et al. by having different calculation method in order to estimate the join result sizes since such having a cardinality calculation for the stated purpose has been well known in the art as evidenced by teaching of Dettinger et al. (see column 2, line 48).

10. Claim 22 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Dettinger et al. (U.S. Pub. No. 2004/0073539) in view of Milby (U.S. Patent No. 6,697,794) as applied to claim 21, and further in view of Schiefer et al. (U.S. Patent No. 5,469,568).

With respect to claim 22, Dettinger et al. and Milby disclose all limitation of invention recited in claim 21 except for a cardinality calculation. However, Schiefer et al. discloses a cardinality calculation (see column 2, line 45-55). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify a database system of Dettinger et al. and Milby by having different calculation method in

order to estimate the join result sizes since such having a cardinality calculation for the stated purpose has been well known in the art as evidenced by teaching of Dettinger et al. (see column 2, line 48).

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung T. Vy whose telephone number is 571-2721954. The examiner can normally be reached on 8.30am - 5.30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571 272 1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hung T. Vy
Art Unit 2821.
April 16, 2006.

DON WONG
SUPERVISORY PATENT EXAMINER